

CLAIMS:

1. Material for use in the manufacturing of printed circuit boards, the material comprising: a polymer matrix; and a soft magnetic powder; wherein the polymer matrix is filled with the soft magnetic powder; and wherein the polymer matrix is such that it is compatible with at least one of materials comprised in printed circuit boards and processes used for the manufacturing of printed circuit boards.
2. The material of claim 1, wherein the polymer matrix is adapted in accordance with a temperature occurring during the manufacturing of printed circuit boards.
3. The material of claim 1, wherein the material has a first flowability at approximately room temperature; wherein the material has a second flowability at a lamination temperature occurring during a lamination in the manufacturing of printed circuit boards, the first flowability being smaller than the second flowability; and wherein the material is adapted to cure one of after and during lamination.
4. The material of claim 1, wherein the polymer matrix is selected from the group consisting of thermosetting resin, polyetheretherketon and polyphenylensulfid.
5. The material of claim 1, wherein the material is in the form of a layer.
6. The material of claim 5, wherein each side of the layer is provided with another layer selected from the group consisting of glass fiber reinforced copper-clad or unclad plastic, prepreg, flex-foil, copper and resin coated copperfoil.
7. The material of claim 1, wherein the material is arranged on a carrier.

8. The material of claim 7, wherein the carrier is selected from the group consisting of glass fiber reinforced copper-clad or unclad plastic, prepreg, flex-foil, copper and resin coated copperfoil.
- 5 9. Printed circuit board, comprising: a polymer matrix; and a soft magnetic powder; wherein the polymer matrix is filled with the soft magnetic powder.
10. 10. The printed circuit board of claim 9, wherein the polymer matrix filled with soft magnetic powder is integrated in the printed circuit board.
- 10 11. The printed circuit board of claim 9, further comprising: circuit structures of a conducting material; wherein the polymer matrix filled with soft magnetic powder forms, together with the circuit structures, an inductive component.
- 15 12. The printed circuit board of claim 11, wherein the inductive component is one of a coil, transformer or electric motor.
- 20 13. The printed circuit board of claim 9, wherein the polymer matrix filled with soft magnetic powder forms a layer, further comprising: a copper layer including circuit structures; and a carrier layer.
14. Method of manufacturing printed circuit boards, the method comprising the step of: selecting a polymer matrix suitable for the use with a manufacturing process for manufacturing printed circuit boards; forming a material by filling the polymer matrix with soft magnetic powder; and applying the material in the manufacturing process for manufacturing printed circuit boards.
- 25 15. Method of claim 14, further comprising the steps of: forming circuit structures at least one of on and in the printed circuit board; wherein the material forms, together with the circuit structures an inductive component.
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